

**Second B. Pharm (Ayurveda) Degree Regular/Supplementary
Examinations March 2024****Physical Pharmacy****Time: 3 Hours****Total Marks: 100**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*

Essays:**(2x10=20)**

1. Define Rheology. Explain the construction, principle and working of any two viscometers.
2. What are the methods by which drugs can be degraded? How the drugs are stabilised against such degradation.

Answer briefly:**(10x5=50)**

3. Explain Freundlich adsorption isotherm and its application
4. Define Micromeritics. Explain coulter-counter method
5. Purification of colloids.
6. Discuss the factors influencing physical stability of suspensions
7. What is microencapsulation. What are the pharmaceutical applications of Microencapsulation
8. Difference between Lyophilic and Lyophobic colloids..
9. Stability problems of Emulsion
10. Derive the equation for First order rate constant and half-life.
11. Capillary rise method for surface tension
12. Kinetic properties of Colloids

Short notes:**(10x3=30)**

13. Plastic flow of fluids
14. Classify surfactants based on their applications.
15. HLB scale
16. Plug flow.
17. Daltons law for vapour pressure.
18. Wetting agent
19. Distribution law and its application.
20. Gold number.
21. Stoke's law
22. Advantages of suspension.